# **AMENDMENTS TO THE CLAIMS**

This listing of claims will replace all prior versions, and listings, of claims in the application:

## **Listing of Claims:**

1. (Currently Amended) A compound of formula I

$$R_3$$
 $R_2$ 
 $R_1$ 
 $R_4$ 
 $R_4$ 
 $R_4$ 
 $R_4$ 
 $R_9$ 
 $R_4$ 
 $R_9$ 
 $R_4$ 
 $R_9$ 
 $R_9$ 
 $R_9$ 
 $R_9$ 
 $R_9$ 

#### wherein

A is C, CR<sub>10</sub> or N;

X is CR<sub>11</sub> or N;

Y is CR, or N with the proviso that when X is N, then Y must be CR,;

 $R_1$  is H,  $C_1$ - $C_6$ alkylcarbonyl,  $C_1$ - $C_6$ alkylcarbonyloxy or an  $C_1$ - $C_6$ alkyl,  $C_1$ - $C_6$ alkenyl,  $C_1$ - $C_6$ alkynl or cycloheteroalkyl group each optionally substituted;

 $R_2$ ,  $R_3$ ,  $R_4$ ,  $R_5$  and  $R_6$  are each independently H, halogen, OH or an optionally substituted  $C_1$ - $C_6$ alkyl group;

 $R_7$  and  $R_{11}$  are each independently H, halogen or an  $C_1$ -  $C_6$ alkyl, aryl, heteroaryl or  $C_1$ - $C_6$ alkoxy group each optionally substituted;

R<sub>s</sub> is an C<sub>1</sub>-C<sub>s</sub>alkyl, aryl or heteroaryl group each
 optionally substituted;

R, is H, halogen or an C<sub>1</sub>-C<sub>6</sub>alkyl, C<sub>1</sub>-C<sub>6</sub>alkoxy, C<sub>1</sub>-C<sub>6</sub>alkenyl, aryl or heteroaryl group each optionally substituted;

R<sub>10</sub> is H, OH or an optionally substituted C<sub>1</sub>-C<sub>6</sub>alkoxy group;

m is an integer of 1, 2 or 3 with the proviso that when m is 2 then A must be C or CR<sub>10</sub>;

n is 0 or an integer of 1, 2 or 3; and

--- represents a single bond or a double bond; or a pharmaceutically acceptable salt thereof.

### 2. (Cancelled)

- 3. (Original) The compound according to claim 1 wherein  $R_{\rm s}$  is an optionally substituted phenyl group.
- 4. (Original) The compound according to claim 1 wherein  $\rm R_{\rm 2}$  ,  $\rm R_{\rm 3}$  ,  $\rm R_{\rm 4}$  ,  $\rm R_{\rm 5}$  and  $\rm R_{\rm 6}$  are H.
- 5. (Currently Amended) The compound according to claim [[2]]  $\underline{1}$  wherein  $R_1$  is H or a  $C_1$ - $C_6$ alkyl or cycloheteroalkyl group each optionally substituted.

### 6. (Cancelled)

7. (Currently Amended) A method for the treatment of a disorder of the central nervous system related to or affected by the 5-HT6 receptor in a patient in need thereof which comprises administering to said patient a therapeutically effective amount of a compound of formula I.

$$R_3$$
 $(CR_5R_6)_m$ 
 $R_4$ 
 $(R_9)_n$ 
 $SO_2R_8$ 

wherein

A is C, CR<sub>10</sub> or N;

X is CR, or N;

- Y is CR, or N with the proviso that when X is N, then Y must be CR,;
- $R_1$  is H,  $C_1$ - $C_6$ alkylcarbonyl,  $C_1$ - $C_6$ alkylcarbonyloxy or an  $C_1$ - $C_6$ alkyl,  $C_1$ - $C_6$ alkenyl,  $C_1$ - $C_6$ alkynl or cycloheteroalkyl group each optionally substituted;
- R<sub>2</sub>, R<sub>3</sub>, R<sub>4</sub>, R<sub>5</sub> and R<sub>6</sub> are each independently H, halogen, OH or an optionally substituted C<sub>1</sub>-C<sub>6</sub>alkyl group;
- $R_1$ , and  $R_{11}$  are each independently  $H_2$ , halogen or an  $C_1$ - $C_6$ alkyl, aryl, heteroaryl or  $C_1$ - $C_6$ alkoxy group each optionally substituted;
- R<sub>8</sub> is an C<sub>1</sub>-C<sub>6</sub>alkyl, aryl or heteroaryl group each
   optionally substituted;
- R, is H, halogen or an C<sub>1</sub>-C<sub>6</sub>alkyl, C<sub>1</sub>-C<sub>6</sub>alkoxy, C<sub>1</sub>-C<sub>6</sub>alkenyl, aryl or heteroaryl group each optionally substituted;
- $R_{10}$  is H, OH or an optionally substituted  $C_1-C_6$ alkoxy group;
- m is an integer of 1, 2 or 3 with the proviso that when m is 2 then A must be C or CR<sub>10</sub>;
- n is 0 or an integer of 1, 2 or 3; and
- --- represents a single bond or a double bond; or a pharmaceutically acceptable salt thereof.
- 8. (Original) The method according to claim 7 wherein said disorder is a motor disorder, anxiety disorder or cognitive disorder.
- 9. (Original) The method according to claim 7 wherein said disorder is schizophrenia or depression.
- 10. (Original) The method according to claim 8 wherein said cognitive disorder is a neurodegenerative disorder.
- 11. (Original) The method according to claim 10 wherein said neurodegenerative disorder is Alzheimer's disease or Parkinson's disease

12. (Currently Amended) A pharmaceutical composition which comprises a pharmaceutically acceptable carrier and an effective amount of a compound of formula I.

$$R_3$$
 $R_4$ 
 $R_4$ 
 $R_4$ 
 $R_4$ 
 $R_4$ 
 $R_9$ 
 $R_1$ 
 $R_1$ 
 $R_1$ 
 $R_1$ 
 $R_1$ 
 $R_2$ 
 $R_1$ 
 $R_1$ 
 $R_1$ 
 $R_2$ 
 $R_1$ 
 $R_1$ 
 $R_2$ 
 $R_1$ 
 $R_2$ 
 $R_1$ 
 $R_2$ 
 $R_1$ 
 $R_2$ 
 $R_3$ 
 $R_4$ 
 $R_4$ 
 $R_4$ 
 $R_4$ 
 $R_9$ 
 $R_4$ 
 $R_4$ 
 $R_9$ 
 $R_4$ 
 $R_9$ 
 $R_9$ 

wherein

A is C,  $CR_{10}$  or N;

X is CR, or N;

Y is CR, or N with the proviso that when X is N, then Y must be CR,;

R<sub>1</sub> is H, C<sub>1</sub>-C<sub>6</sub>alkylcarbonyl, C<sub>1</sub>-C<sub>6</sub>alkylcarbonyloxy or an C<sub>1</sub>-C,alkyl, C,-C,alkenyl, C,-C,alkynl or cycloheteroalkyl group each optionally substituted;

R, R, R, R, and R, are each independently H, halogen, OH or an optionally substituted C,-C,alkyl group;

 $R_{1}$  and  $R_{11}$  are each independently H, halogen or an  $C_{1}$ - $C_6$ alkyl, aryl, heteroaryl or  $C_1$ - $C_6$ alkoxy group each optionally substituted;

R<sub>s</sub> is an C<sub>1</sub>-C<sub>6</sub>alkyl, aryl or heteroaryl group each optionally substituted;

R, is H, halogen or an C,-C,alkyl, C,-C,alkoxy, C,-C,alkenyl, aryl or heteroaryl group each optionally substituted;

R<sub>10</sub> is H, OH or an optionally substituted C<sub>1</sub>-C<sub>6</sub>alkoxy group;

m is an integer of 1, 2 or 3 with the proviso that when m is 2 then A must be C or CR,,;

n is 0 or an integer of 1, 2 or 3; and

---- represents a single bond or a double bond; or a pharmaceutically acceptable salt thereof.

#### 13. (Cancelled)

- 14. (Original) The composition according to claim 12 wherein  $R_{\rm s}$  is an optionally substituted phenyl group.
- 15. (Original) The composition according to claim 12 wherein  $R_2$ ,  $R_3$ ,  $R_4$ ,  $R_5$  and  $R_6$  are H.
- 16. (Currently Amended) The composition according to claim [[13]] 12 wherein  $R_1$  is H or a  $C_1$ - $C_6$ alkyl or cycloheteroalkyl group each optionally substituted.

#### 17. (Cancelled)

18. (Currently Amended) A method for the preparation of a compound of formula I.

$$R_3$$
 $R_2$ 
 $R_1$ 
 $R_3$ 
 $R_4$ 
 $R_4$ 
 $R_4$ 
 $R_4$ 
 $R_5$ 
 $R_6$ 
 $R_6$ 
 $R_7$ 
 $R_9$ 
 $R_7$ 
 $R_9$ 
 $R_9$ 

## wherein

A is C, CR<sub>10</sub> or N;

X is CR, or N;

- Y is CR, or N with the proviso that when X is N, then Y must be CR,;
- $R_1$  is  $C_1-C_6$ alkylcarbonyl,  $C_1-C_6$ alkylcarbonyloxy or an  $C_1-C_6$ alkyl,  $C_1-C_6$ alkenyl,  $C_1-C_6$ alkynl or cycloheteroalkyl group each optionally substituted;
- $R_2$ ,  $R_3$ ,  $R_4$ ,  $R_5$  and  $R_6$  are each independently H, halogen, OH or an optionally substituted  $C_1-C_6$ alkyl group;
- $R_{11}$  are each independently H, halogen or an  $C_1$ - $C_6$ alkyl, aryl, heteroaryl or alkoxy group each optionally substituted;
- R<sub>8</sub> is an C<sub>1</sub>-C<sub>6</sub>alkyl, aryl or heteroaryl group each
   optionally substituted;

R, is H, halogen or an C<sub>1</sub>-C<sub>6</sub>alkyl, C<sub>1</sub>-C<sub>6</sub>alkoxy, C<sub>1</sub>-C<sub>6</sub>alkenyl, aryl or heteroaryl group each optionally substituted;

 $R_{10}$  is H, OH or an optionally substituted  $C_1-C_6$ alkoxy group;

m is an integer of 1, 2 or 3 with the proviso that when m is 2 then A must be C or CR<sub>10</sub>;

n is 0 or an integer of 1, 2 or 3; and

--- represents a single bond or a double bond
said method which comprises reacting a compound of formula Ia

$$R_3$$
 $R_4$ 
 $R_5$ 
 $R_6$ 
 $R_7$ 
 $R_8$ 
 $R_8$ 
 $R_8$ 

wherein A, X,  $R_2$ ,  $R_3$ ,  $R_4$ ,  $R_5$ ,  $R_6$ ,  $R_7$ ,  $R_8$ ,  $R_9$ , m and n are as defined hereinabove for formula I with a compound  $R_1$ -Hal wherein  $R_1$  is as defined hereinabove for formula I and Hal is Cl, Br or I.